

CLAIMS

WE CLAIM:

1. A brake assembly for locking a slidable sash window within a track of a frame, the track having a pair of spaced apart, opposed sidewalls, the assembly comprising:

a slider body adapted for slidable motion within the track, the slider body having a central opening extending from a front face to a rear face and having a side opening adjacent to the central opening;

a brake member comprising a spring having a braking surface, the brake member mounted within the slider body such that the braking surface is adapted for reciprocal lateral movement through the side opening;

a cam positioned in the central opening;

wherein the slider body receives and retains the brake member and the cam is rotatable in the central opening for laterally biasing the braking surface for movement through the side opening wherein the braking surface is adapted to frictionally engage one of the opposed side walls.

2. The brake assembly of claim 1 wherein the slider body further comprises a second side opening adjacent to the central opening and the brake member further comprises a second braking surface adapted for reciprocal lateral movement through the second side opening.

3. The brake assembly of claim 1 wherein the spring further comprises an end portion having a first segment and a second segment, the first segment curving inwardly and the second segment curving outwardly, wherein the braking surface is located on the second segment.

4. The brake assembly of claim 1 wherein the braking surface is serrated.

5. The brake assembly of claim 1 wherein the braking surface has a plurality of serrations.

6. The brake assembly of claim 5 wherein the plurality of serrations comprises a pair of serrations.

7. The brake assembly of claim 5 wherein the plurality of serrations comprises three pair of serrations.

5 8. The brake assembly of claim 1 wherein the braking surface has a frictional protuberance.

9. The brake assembly of claim 1 wherein the slider body has a retaining tab adapted for holding the brake member within the slider body.

10 10. The brake assembly of claim 1 wherein the slider body has a lateral cross member and the spring has a base portion in close abutment with the lateral cross member.

11. The brake assembly of claim 1 further comprising a retaining tab on the lateral cross member for retaining the brake member in the slider body.

15 12. The brake assembly of claim 1 wherein the slider body has a plurality of retaining tabs for holding the brake member within the slider body.

13. The brake assembly of claim 1 wherein the cam has a nipple adapted to engage an end surface of the central opening for maintaining the cam within the slider body.

20 14. The brake assembly of claim 1 wherein the cam has an arcuate surface and a flat surface, the cam being adapted for cooperation between the arcuate surface and the flat with the brake member for said movement of the braking surface through the side openings.

25 15. The brake assembly of claim 14 wherein the cam is further adapted for cooperation between its arcuate surface and the spring for said movement of the braking surface through the side opening.

16. A brake assembly for locking a slidable sash window within a track of a frame, the track having a pair of spaced apart, opposed sidewalls, the assembly comprising:

a slider body adapted for slidable motion within the track, the slider body having a central opening extending from a front face to a rear face and having a side opening adjacent to the central opening;

5 a brake member comprising a spring having an end portion having a first segment and a second segment, the first segment curving inwardly and the second segment curving outwardly and having a braking surface thereon, the brake member mounted within the slider body such that the end portion is adapted for reciprocal lateral movement through the side opening;

a cam positioned in the central opening;

10 wherein the slider body is adapted to receive the brake member and the cam is adapted to be rotatable in the central opening for laterally biasing the end portion for movement through the side opening wherein the braking surface is adapted to frictionally engage one of the opposed side walls.

15 17. The brake assembly of claim 16 wherein the slider body further comprises a second side opening adjacent to the central opening and the brake member further comprises a second end portion, the second end portion also having a first segment and a second segment, the first segment curving inwardly and the second segment curving outwardly, a second braking surface located on the second segment of the second end portion, wherein the cam is adapted for laterally biasing the second end portion for movement through the side opening for frictional engagement of the second
20 braking surface with the opposed side walls.

18. The brake assembly of claim 17 wherein the braking surface is serrated.

25 19. The brake assembly of claim 17 wherein the braking surface has a plurality of serrations.

20. The brake assembly of claim 19 wherein the plurality of serrations comprises a pair of serrations.

21. The brake assembly of claim 19 wherein the plurality of serrations comprises three pair of serrations.

22. The brake assembly of claim 16 wherein the braking surface has a frictional protuberance.

5 23. The brake assembly of claim 16 wherein the slider body has a retaining tab adapted for holding the brake member within the slider body.

24. The brake assembly of claim 16 wherein the slider body has a plurality of retaining tabs adapted for holding the brake member within the slider body.

10 25. The brake assembly of claim 16 wherein the cam has a nipple adapted to engage an end surface of the central opening for maintaining the cam within the slider body.

15 26. The brake assembly of claim 16 wherein the cam has an arcuate surface and a flat, the cam being adapted for cooperation between the arcuate surface and the flat with the end portion for said movement of the braking surface through the side opening.

27. A brake assembly for locking a slidable sash window within a track of a frame, the track having a pair of spaced apart, opposed sidewalls, the assembly comprising:

20 a slider body adapted for slidable motion within the track, the slider body having a central opening extending from a front face to a rear face and having a pair of side openings adjacent to the central opening;

a brake member comprising a spring having a pair of braking surfaces, the brake member mounted within the slider body such that each braking surface is adapted for reciprocal lateral movement through a respective side opening;

25 a cam positioned in the central opening;

wherein the slider body receives and retains the brake member and the cam is rotatable in the central opening wherein the braking surfaces are adapted to frictionally engage respective opposed side walls.

28. A brake assembly for locking a slidable sash window within a track of a frame, the track having a pair of spaced apart, opposed sidewalls, the assembly comprising:

5 a slider body adapted for slidable motion within the track, the slider body having a central opening extending from a front face to a rear face, having a pair of side openings adjacent to the central opening;

10 a brake member comprising a spring having a base portion and two end portions, each end portion having a first segment curving inwardly and a second segment curving outwardly and having a convex outer surface, each end portion having a braking surface located on the second segment with each braking surface having a plurality of serrations thereon extending from the second segment, the brake member mounted within the slider body such that one of the respective braking surfaces is adapted for reciprocal lateral movement through a respective side opening;

a cam positioned in the central opening;

15 wherein the slider body receives and retains the brake member and the cam is rotatable in the central opening for laterally biasing the braking surfaces for movement through respective side openings wherein the braking surfaces are adapted to frictionally engage respective opposed side walls.

20 29. A brake assembly for locking a slidable sash window within a track of a frame, the track having a pair of spaced apart, opposed sidewalls, the assembly comprising:

a slider body adapted for slidable motion within the track, the slider body having a central opening extending from a front face to a rear face and having a pair of side openings adjacent to the central opening;

25 a brake member comprising a pair of brake pads connected by a flexibly resilient member, the brake member mounted within the slider body such that one brake pad each is adapted for reciprocal lateral movement through a respective side opening,

the brake member mounted within the slider body such that one of the respective braking surfaces is adapted for reciprocal lateral movement through a respective side opening;

a cam positioned in the central opening;

wherein the slider body receives and retains the brake member and the cam
 5 is rotatable in the central opening for laterally biasing the brake pads for movement through respective side openings wherein the brake pads are adapted to frictionally engage respective opposed side walls.

30. The brake assembly of claim 29 further comprising:

a frictional groove located on each brake pad for said frictional engagement
 10 with respective opposed side walls.

31. A brake member for a brake assembly having a slider body with a pair of side openings for locking a slidable sash window within a track of a frame, the brake member comprising:

a spring having a base portion and two end portions, each end portion having
 15 a first segment curving inwardly and a second segment curving outwardly and having a convex outer surface, each end portion having a braking surface located on the second segment with each braking surface having a plurality of serrations thereon extending from the second segment;

wherein the brake member is adapted to be mounted within the slider body
 20 such that one of the respective braking surfaces is adapted for reciprocal lateral movement through a respective side opening.

32. A brake assembly for locking a slidable sash window within a track of a frame, the track having a pair of spaced apart, opposed sidewalls, the assembly comprising:

25 a slider body adapted for slidable motion within the track, the slider body having a central opening extending from a front face to a rear face and having a side opening adjacent to the central opening;

a brake member comprising a spring having an end portion having a first segment curving inwardly and a second segment having a braking surface, the brake member mounted within the slider body such that the braking surface is adapted for reciprocal lateral movement through the side opening;

5 a cam positioned in the central opening, the cam having a concave surface receiving the first segment;

 wherein cam is rotatable in the central opening to engage the first segment for laterally biasing the braking surface for movement through the side opening, wherein the braking surface is adapted to frictionally engage one of the opposed side walls.

10 33. The brake assembly of claim 32 further comprising:

 a second side opening adjacent to the central opening of the slider body;

 a second end portion of the brake member having a first segment curving inwardly and a second segment having a braking surface; and

15 a second concave surface of the cam receiving the first segment of the second end portion of the brake member;

 wherein the cam is rotatable in the central opening to engage the first segment of the second end portion of the brake member for laterally biasing the braking surface of the second end portion of the brake member through the second side opening.

20 34. A cam for a brake assembly for locking a slidable sash window within a track of a frame, the assembly including a slider body with a central opening for rotatably supporting the cam, a brake member associated with the slider body and further including a pivot pin, the cam comprising:

25 a generally cylindrical body having an axial slot adapted to receive the pivot pin, the body having a portion having an outer peripheral surface with an arcuate surface and a concave surface;

 wherein the cam is adapted to be mounted within the central opening and wherein the concave surface is adapted to receive a portion of the brake member.

35. A cam for a brake assembly for locking a slidable sash window within a track of a frame, the assembly including a slider body with a central opening for rotatably supporting the cam, a brake member associated with the slider body and further including a pivot pin, the cam comprising:

5 a generally cylindrical body having an axial slot adapted to receive the pivot pin, the body having a portion having an outer peripheral surface with a pair of opposed arcuate surfaces and a pair of opposed concave surfaces;

10 wherein the cam is adapted to be mounted within the central opening and wherein the concave surfaces are each adapted to receive a respective portion of the brake member.